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**MAP, PLAN AND REPORT
FOR
TOWN OF NEWBURGH
ROSETON HILLS SEWER DISTRICT
ORANGE COUNTY, NEW YORK**



CLIENT:

Town of Newburgh
1496 Route 300
Newburgh, NY 12550

PREPARED BY:

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ADDITION TO THIS DOCUMENT IS A
VIOLATION OF SECTION 7209(2) OF THE
NEW YORK STATE EDUCATION LAW**

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II	DISTRICT BOUNDARY DESCRIPTION

I. INTRODUCTION

McGoey, Hauser and Edsall Consulting Engineers, D.P.C. (MHE), has been authorized by the Town of Newburgh (Town) to prepare this Map, Plan and Report for the formation of the Town's Roseton Hills Sewer District (District). The District is wholly located within the Town of Newburgh, Orange County New York. The District is generally located adjacent to and east of New York State Route 9W (NYS 9W) between Oak Street and Larabee Road. A parcel generally located west of the existing District, adjacent to NYS 9W is proposed to be included in the District. Attachment 1 to this report is a map of the district boundaries and Attachment 2 contains the Metes and Bounds description of the District.

The District currently serves the Parr Valley East and Orchard Hills subdivisions and was previously was financed by a privately owned Transportation Corporation. These two subdivisions consist of 168 and 260 units respectively. The Town is currently in the process of purchasing the District's assets from this private entity and forming a special district. The assets include an existing wastewater treatment facility (SPDES Permit # NY-0271373) and its associated collection system.

Parr Valley West is a 124 unit condominium complex to the west of NYS 9W that has a separate wastewater treatment facility. This facility operates under SPDES Permit NY-0098213 and is in a state of disrepair. The Town wishes to re-purpose the facility to serve as a pump station and convey wastewater to the Roseton Hills treatment facility on the east side of NYS Route 9W. This action requires Parr Valley West to be included in the District.

The purpose of this Map, Plan and Report is to provide for the formation of new District comprising areas previously owned by the Parr Valley West Sewage Works Corporation and the Roseton Hills Sewage Works Corporation. This Map, Plan, and Report will provide for the re-allocation and apportionment of cost on a benefit use basis for parcels and rental units within the District. Procedures for the District formation shall conform to Town Law Article 12. The scope of this report includes the evaluation of the existing treatment plants, proposes costs for required improvements, proposes a fair distribution of costs within the District by using benefit units, and provides first year impacts to each benefit unit within the District.

II. BENEFIT AREA

The District is wholly located within the Town of Newburgh, Orange County New York. The District is generally located adjacent to and east of New York State Route 9W (NYS 9W) between Oak Street and Larabee Road. This area corresponds to the area currently served by the Roseton Hills Sewage Works Corporation. An additional parcel generally located west and adjacent to NYS 9W is proposed to be included in the District. The District is being formed under Town Law Article 12 procedures. Attachment 1 to this report is a map of the district boundaries. Attachment 2 contains a Metes and Bounds description of the sewer district.

The properties within the proposed District are fully developed with no vacant parcels remaining.

III. WASTEWATER FLOW AND QUALITY

Influent flow and wastewater strength information has been provided by the Parr Valley west wastewater treatment plant (WWTP-PV) as well as the existing Roseton Hills Sewer Works Corporation WWTP (WWTP-RH). The environment is protected by setting limits on certain parameters that will be discharged from the facility. These limits are provided in the facility's SPDES permit. Wastewater strength for this facility is primarily evaluated based on SPDES limits which for this facility include Biological Oxygen Demand (BOD), Total Suspended Solids (TSS), and Ammonia (NH₃).

The BOD is a general approximation of the organic strength of the wastewater. BOD represents the carbonaceous "food" for microorganisms to consume to treat the wastewater. In domestic wastewaters such as this, it is typical for a majority of the BOD to be dissolved in the wastewater. The remaining BOD arrives with other inorganic solids. Organic and inorganic solids are measured under the parameter TSS. Lastly the ammonia represents the nitrogenous "food" for the microorganisms to consume to treat the wastewater.

Removal of all three parameters results in a highly cleaned wastewater that can safely be discharged to the environment. Operational reports from the year 2015 were used to develop Table 1 below. The average daily flows, masses of BOD, TSS and Ammonia were combined to create a scenario of how the plant may have operated if they two systems were combined in 2015. Total masses were then converted back to concentrations using the combined 0.0701 MGD flow. Combined values are shown in bold below.

Table 1

Location	Average Daily/Max Day Flow (MGD)	Average/Max Day BOD (mg/L)	Average/Max Day TSS (mg/L)	Average/Max Day NH ₃ (mg/L)*
Parr Valley West	0.0195 / 0.046	206.5 / 360	376.9 / 2,000	21.5 / 37.5
Roseton Hills Sewer District	0.0506 / 0.107	284.7 / 378	143.3 / 373	29.7 / 39.4
COMBINED AVERAGES	0.0701 / 0.153	262.4 / 373.2	209.9 / 801.1	27.3 / 38.9

* - No influent ammonia data available. Concentrations assumed. See details below.

The treatment facility was designed for an average daily flow of 120,000 gpd. The average daily flow is calculated by dividing the total volume of wastewater treated by the number of days in the month. Actual daily flows therefore may be less than or greater than this average. The maximum day flows shown above do not constitute a SPDES permit violation as it occurred on only one day in a month.

The facility was designed for an assumed influent BOD, TSS, and Nitrogen of 240 mg/L, 204 mg/L, and 39.6 mg/L respectively. Ammonia values are not reported on operational reports. It will be assumed for the purposes of this report that ammonia constitutes 25 mg/L of the Nitrogen. This assumption matches the apparent design intent of the facility. All the assumptions provided are typical of medium strength domestic wastewater. To estimate ammonia for Table 2 purposes, the 25 mg/L assumption was multiplied by the ratio of: actual BOD concentration/ 240. It should be noted that the operator took a grab sample during an MHE site visit on March 23, 2016. Using a field test kit a result of 25.6 mg/L for influent ammonia was obtained. This gives some indication that the assumption may be reasonable.

It is unclear how the 2,000 mg/L TSS value came from as this is well outside typical domestic wastewater values. If that is an anomaly the average and max values are reduced to 125 mg/L / 190 mg/L respectively.

Table 1 shows the facility has sufficient hydraulic and organic capacity to combine the two systems. Total average wastewater flow for the new District is estimated to range between 55,000 gpd and 102,000 gpd and equal approximately 70,100 gpd on average. This flow range is well below the permitted flow of 120,000 gpd. Similarly the combined facility would operate at approximately 63% capacity for organics and ammonia, and 50% for solids on average.

IV. EVALUATIONS AND RECOMMENDATIONS

Parr Valley West WWTP Evaluation

The facility is permitted to discharge 34,500 gpd and operates under SPDES permit NY-0098213. Table 1 shows current flows are well below this limit. The subdivision is at 100% buildout. It is unknown if the condominium complex is 100% occupied. The technical evaluation is limited to aspects of the facility that is proposed to be re-purposed into a pump station with equalization. The remaining portions of the facility are proposed to be abandoned pursuant to 6 NYCRR Part 750-2.11 regulations. A generalized flow diagram is not provided for reference since the treatment aspect of the facility is not proposed to be re-purposed.

The influent pump station conveys flows to the treatment plant. The facility is a packaged system with two identical trains consisting of: a bar screen, aeration tank for treatment, and a final clarifier to separate solids and wastewater. A sludge holding tank to store solids until they can be hauled away is also included. After aeration the flow from each train is combined to provide for disinfection to inactivate microorganisms in the effluent. Flow then is discharged to the receiving stream. All these components are operating well under the design flows.

The influent pump station consists of a wet well and two non-clog style pumps. The operator indicated that each pump is rated at 250 gpm. The manufacturer's pump curve shows 250 gpm at an approximate TDH of 19'. This appears accurate based on a cursory view of the site. The operator has indicated that the pumps clog routinely with rags.

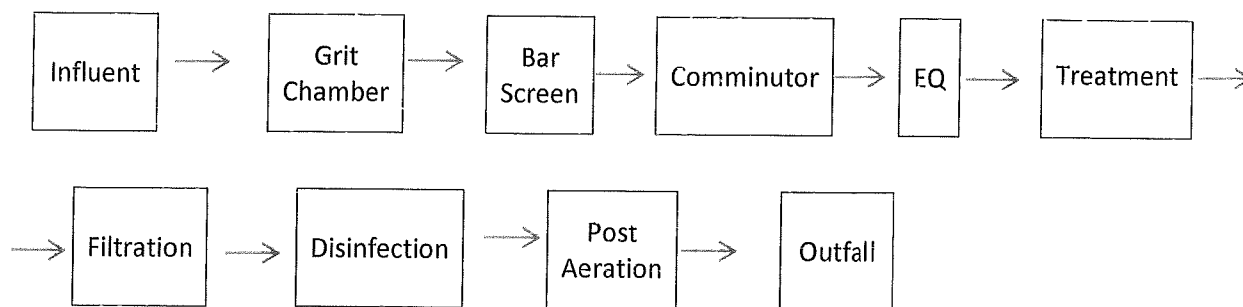
The treatment facility is constructed of steel that appears to be well beyond its design life. Holes in common walls between units have been indicated by the operator. It appears that no portion of the treatment process is salvageable. The treatment building which houses blowers, electrical, a desk, and spare parts appears to be in an acceptable condition.

Roseton Hills Sewer District WWTP Evaluation

The treatment facility operates under SPDES permit NY-0271373 and is currently meeting all permit limits. Two violations have been reported at this facility in 2015. The first violation occurred due to rags within the

filter system preventing proper function. The second violation was a result of faulty control wiring in the EQ pump system. Both violations were remedied quickly. MHE performed a preliminary analysis to establish what upgrades to the facility are required to accommodate Parr Valley West. This included a site visit on March 23, 2015 to review the facility and talk to the operator onsite. A generalized flow diagram for the facility is included in Figure 1 below:

Figure 1



It is felt that the facility can accept the wastewater from Parr Valley West without issue. The proposed sewer district is 100% built out so no additional flows as calculated in Table 1 (within the district) is anticipated. The facility is designed to treat 120,000 gpd of standard domestic wastewater. Current flows are approximately 50,600 gpd. Parr Valley West would raise the average daily flow to approximately 70,100 gpd. The facility currently uses hydrated lime to boost influent alkalinity to maintain process stability.

The facility consists of a grit chamber, bar screen, comminutor to grind incoming solids down to a small size, an equalization tank, 3 aeration tanks for treatment of BOD and ammonia, a clarifier to separate solids and wastewater, a sludge holding tank to store solids until they can be hauled away, a tertiary filter to polish the clarifier effluent of any solids, disinfection to inactivate microorganisms in the effluent, and lastly post aeration to provide the effluent with dissolved oxygen to protect the receiving stream. Most components are operating well under the design flows.

The chief operator indicated in March of 2016 that rags continue to be an issue, particularly on the equalization tank pumps. The facility has replaced both pumps twice in the last 4 years of operation. It appears the comminutor and bar screen is not performing in an acceptable manner.

HEADWORKS

The grit chamber, bar screen, and comminutor are collectively referred to as the headworks. The design plans show the flow path as: grit chamber – comminutor (w/bypass) - bar screen. The actual flow path as installed is grit chamber – bar screen – comminutor (w/bypass). The actual flow path is felt to be the better approach.

The grit chamber settles out inorganic solids that come in, allowing lighter organic solids to continue with the wastewater. The settled grit is manually removed by the operators when needed. Its effectiveness is unknown. To date no issues with grit in the facility has been reported.

The bar screen removes larger debris and rags from the waste stream. It is manually cleaned with approximately 1" space between bars which is consistent for this type of screen. The operators clean the bar screen daily to avoid backups. Given the rag issues at the facility, the effectiveness of the bar screen appears to be low.

The comminutor is designed to grind solids down to little pieces so that they do not interfere with downstream equipment. A bypass exists around the unit to allow for maintenance. This bypass is normally closed. The presence of rag material in the process is creating problems such as pump maintenance and permit violations. This indicates that either the unit is not functioning well or that the technology is not ideal for this facility.

EQUALIZATION TANK

The equalization (EQ) tank has a capacity of 27,478 gallons. This represents approximately 22.9% of the average daily design flow of 120,000 gpd. This percentage appears to have been approved by regulatory agencies. It is expected that this EQ tank would operate without issue at the revised combined design flow of 70,100 gpd. Experience from other facilities in the area indicates a range of 20% - 25% storage factor is typical. At the 22.9% storage factor, the proposed flow from the new District would only require approximately 16,053 gallons of the available 27,478 gallons.

FACILITY PUMPS

The EQ pumps appear to be the only pumps that require upgrading. Table 2 below shows the two pumps and the impact of adding Parr Valley West to the facility on an average day:

Table 2

Description	EQ Pumps		Filter Feed Pumps	
Pump Design Flow	43.5	gpm	70	gpm
Facility Avg. Flow	35.1	gpm	35.1	gpm
Existing Pump Run Time	19.4	hrs/day	10.0	hrs/day
Parr Valley West Pump Flow	13.6	gpm	13.6	gpm
Proposed Pump Run Time	26.6	hrs/day	13.9	hrs/day

The pumps have gone through 2 replacements since the initial installation 4 to 5 years ago. The most recent pumps are rated for 50 gpm and appear to the operators to actually be producing closer to 43.5 gpm and are sufficient for current flows.

It appears clear from Table 2 that the EQ pumps are insufficient to handle the proposed combined flow. The design plans show the EQ pumps were designed for 104 gpm (150,000 gpd). Restoring the pumps to the original design flow should be sufficient to handle the additional proposed average daily and max day flows with minimal need for the pumps to operate concurrently.

FILTER

The operators indicate the filter is a high maintenance item. The unit is a continuously backwashing filter. There is no redundant unit installed. The operators indicated during the site visit on March 23, 2016 that rags and debris accumulate and plug the filter. In addition they chemically clean the filter approximately bi-weekly. The tertiary filter appears to operate acceptably between cleanings and when rags do not plug the unit. There is no redundant filter at this facility.

The high maintenance presents a risk of failure and elevated operational costs. Loss of the filter results in a high risk the facility will not meet all SPDES permit limits. Operation and Maintenance manual from the manufacturer does not address chemical cleaning of the sand as part of its normal maintenance schedule. It is felt therefore that this is an abnormal operation needed to keep the system operational at this facility.

Recommendations for Parr Valley West WWTP

It is recommended that the Parr Valley West facility be re-purposed to convey wastewater to Roseton Hills. Re-purposing the facility involves screening improvements, conversion of an existing tank to an equalization tank, construction of a pump station and force main, installation of new controls and electrical components, and abandonment of the remaining tankage. All improvements to the facility shall conform to the latest edition of 10 State Standards. To establish a budgetary cost for improvements for this report the sizing of tanks and equipment use conservative methods. Final sizing is to be completed in the design phase and may differ from what is proposed herein.

Screening improvements include removal, washing, dewatering, and bagging of all influent debris. The noted rags/wipes issue creates increased maintenance and reliability issues. Removal of the material is currently the only reliable method of handling the material until the new comminution devices released in 2015 prove themselves in the long term.

Using a 25% storage factor the new pump station will require a wet well/EQ tank size of at least 4,875 gallons at the actual average daily flow of 19,500 gpd. The existing blowers at the facility appear to be recently replaced and can be re-purposed for equalization tank aeration and mixing.

A DR 11 HDPE or equal type transmission main is assumed for this report. The force main routing shall include a horizontal bore under New York State Route 9W (NYS 9W), a southerly tract within the NYS 9W Right-of-Way, then into Parr Valley East where it is proposed to connect into their gravity collection system. Route length depends on multiple factors. For this report a length of 2,200 lineal feet is assumed as this represents a more conservative design and cost.

The low daily flow from this facility requires a smaller 2" or possibly 3" force main to ensure solids cleansing velocities are achieved. A grinder pump is the only pump type allowed under the design standards for this size force main.

A grinder pump system sized to each provide, at minimum, the maximum day equalized flow with one pump out of service. The pumps should be of grinder type and would appear to require no more than 7.5 HP in energy. The choice of installation is anticipated to be based upon the most cost and energy effective approach found during design. Options include:

1. Submersible to be placed inside a tank.
2. Submersible in a separate wet well.
3. Installed in a dry pit.

The design of the pumps and force main will be coordinated in the design phase of the project to provide the most energy efficient approach. Further options are to be reviewed during design include energy saving measures such as using variable frequency drives on the pumps or utilize additional smaller flow pumps.

The facility will also require an emergency generator to meet current standards. The unit would operate on diesel and be located outside in a weatherproof, sound attenuated enclosure. Lastly the fencing at the facility is beyond its useful life and should be replaced only to allow for the new equipment. A semi-private vinyl fence has been assumed for this report. The existing building can be secured with locks and deadbolts.

Recommendations for Roseton Hills WWTP

The Roseton Hills facility can accept flow without issue, however the operators have noted issues with rags that clog EQ pumps and create issues downstream in the plant. Improvements are recommended to help ensure rags do not continue to create undue maintenance and failures of processes. The possibility of disposable wipes being utilized in the future creates an additional need for removal. To establish a budgetary cost for improvements for this report the sizing of tanks and equipment use conservative methods. Final sizing is to be completed in the design phase and may differ from what is proposed herein.

The influent comminutor is recommended to be removed and replaced with a screenings removal system such as a model AGV1800-285 as manufactured by JWC Environmental or equal. This all in one unit captures ground up screenings on a fine screen and user an auger to remove. Wastewater passes through to the downstream EQ tank. Collected screenings would be washed to remove organics, compacted to dewater them, and then bagged for easy removal by operators. The system appears to fit in the same footprint area that the comminutor occupied. Freeze protection would be required due to the climate. The required EQ volume for the combined facility is significantly less than the present volume. This allows for a new, lower inlet to be installed in the EQ tank to facilitate the unit. The existing bar screen would remain.

The proposed upgrade should stop rag material from entering the facility. There is a possibility that issues associated with rags could continue once upgrades are complete. This is caused by material already present within the system at the time of the upgrade. Any issues that arise are anticipated to be short term in nature.

The controls of the EQ tank would be modified to ensure the level in the EQ tank does not reach levels that would create issues with the new screenings removal unit. The EQ pumps should be replaced to return them to the design flow of 104 gpm to restore capacity in the combined system.

The high maintenance filter should remain, but undergo re-evaluation after headworks improvements are complete. In the event that the filter continues to require high maintenance then replacement of the filter should be investigated as an option.

The use of hydrated lime to boost alkalinity should be evaluated in the design phase to determine if a more cost effective chemical is available.

V. CAPITAL COST AND BENEFIT UNIT FORMULA

The project costs to design and construct the recommended improvements are shown in Table 2 below:

Table 2

Location	Description	Estimated Capital Cost
Parr Valley West	Abandonment of Facilities	\$75,000
	New Screenings/Manhole Mod.	\$160,000
	New EQ Tank	\$30,000
	New EQ Pumps/Wet Well	\$20,000
	Site Work/Fencing	\$40,000
	Updated Controls	\$10,000
	2,200 L.F. Force Main	\$150,000
	NYS Route 9W Horizontal Bore	\$30,000
	Emergency Generator	\$30,000
Roseton Hills	New Screenings/Manhole	\$160,000
	New EQ Pumps	\$5,000
	Site Work	\$10,000
	Updated Controls	\$10,000
SUBTOTAL:		\$730,000
10% Construction Contingency		\$73,000
CONSTRUCTION TOTAL:		\$803,000
Engineering Design		\$147,500
Legal, Administrative, Financial		\$25,000
Purchase Price of Roseton Hills WWTP		\$1,850,000
TOTAL PROJECT COSTS:		\$2,825,500

All tax parcels located within the district are assessed benefit units for the purpose of fair distribution of capital costs as well as operation and maintenance costs. For the residential condominium complexes one benefit unit is assigned to each residential unit in the condominium. Similarly, for multi-family complexes in single ownership, each dwelling unit in the complex is assigned one benefit unit. Commercial parcels are

assigned benefit units based upon their design water flow divided by the average design residential flow for the District. An example of commercial estimation is as follows:

A commercial parcel is estimated to utilize 700 gallon per day by design standards. If a residential unit in the District is assumed to utilize 350 gallons per day then the commercial parcel would be assessed two (2) benefit units.

VI FIRST YEAR COST

The benefit system identified above was utilized to calculate contribution of each parcel towards debt service. Actual project costs are defined at this time as costs of construction of all recommendations proposed herein. As the Town intends to obtain long term financing for this debt, a thirty year payment schedule has been utilized to determine first year cost within the district. The Town of Newburgh has identified its current bond rate at 4.1 percent. Utilizing current bond principal and current bond rate, a level debt payment schedule was estimated as follows:

PROJECTED INTEREST RATE 4.1%

BOND PRINCIPAL \$2,825,500

BOND TERM 30 YEARS

Monthly Payment

\$13,783

Yearly Total

\$165,389

A yearly cost to each individual parcel has been assessed based on the benefit system analysis identified above. There are 552 benefit units within the proposed District. The cost assessment is therefore \$299.62 per benefit unit.

Operation and maintenance (O&M) costs for the combined system were estimated using actual costs wherever possible. Costs to the Parr Valley West should be significantly reduced while only have a small increase at the Roseton Hills treatment facility.

The costs to Parr Valley West facility would be significantly reduced due to lower utility, testing, and time required onsite. Permit fees and sludge removal costs would also appear to be eliminated from the annual costs. The current O&M budget for Parr Valley West is approximately \$36,000 per year. This report will assume the cost will be reduced to \$12,000 per year.

The costs to Roseton Hills facility would be increased slightly as a result of increased aeration and sludge removal. The current O&M budget for Roseton Hills is approximately \$82,550 per year. This report will assume the cost will be increased to \$88,000 per year.

The combined O&M for the proposed District is therefore \$100,000 per year. This is \$181.16 per benefit unit.

The table below summarizes the first year costs:

Capital Cost	O&M Cost ⁽¹⁾	TOTAL
\$299.62	\$181.16	\$480.78

(1) – O&M Costs are adjusted annually, trending upward over time.

The proposed action should not require New York State Audit and Control approval. The 2016 threshold for sewer districts is set by New York State Audit and Control and is \$798 per benefit unit. This threshold is adjusted annually, with the new threshold taking effect every January 1st.

VII CONCLUSION AND RECOMMENDATIONS

The proposed debt service cost to the individual parcels within the district to purchase the District and expand it to include Parr Valley West along with improvements to both treatment facilities appears reasonable and does not exceed the threshold that would require New York State Audit and Control approval.

Our office recommends modifying the district's financing and benefit payment as identified above. This is based on this office's review of the sewer district service area, the original expressed interest of property owners be included and to participate in the district and allocation of cost on a benefit basis.

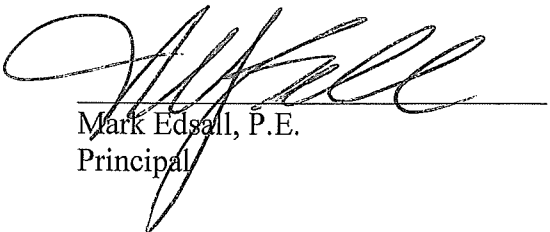
It is further recommended that the Town of Newburgh Town Board undertake any necessary actions relative to modifying and reallocating cost within the district on a benefit use system in accordance with recommendations of the Town Attorney.

Respectfully submitted,

McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.

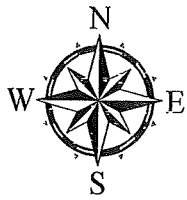


Andy Seidel, P.E.
Senior Engineer



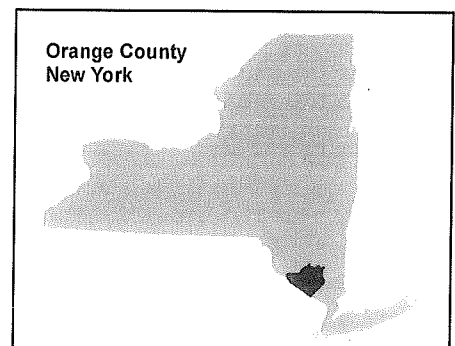
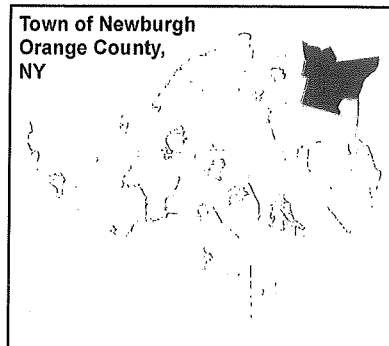
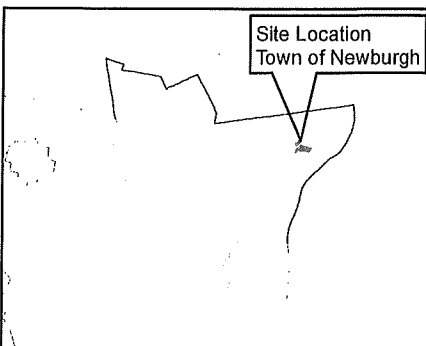
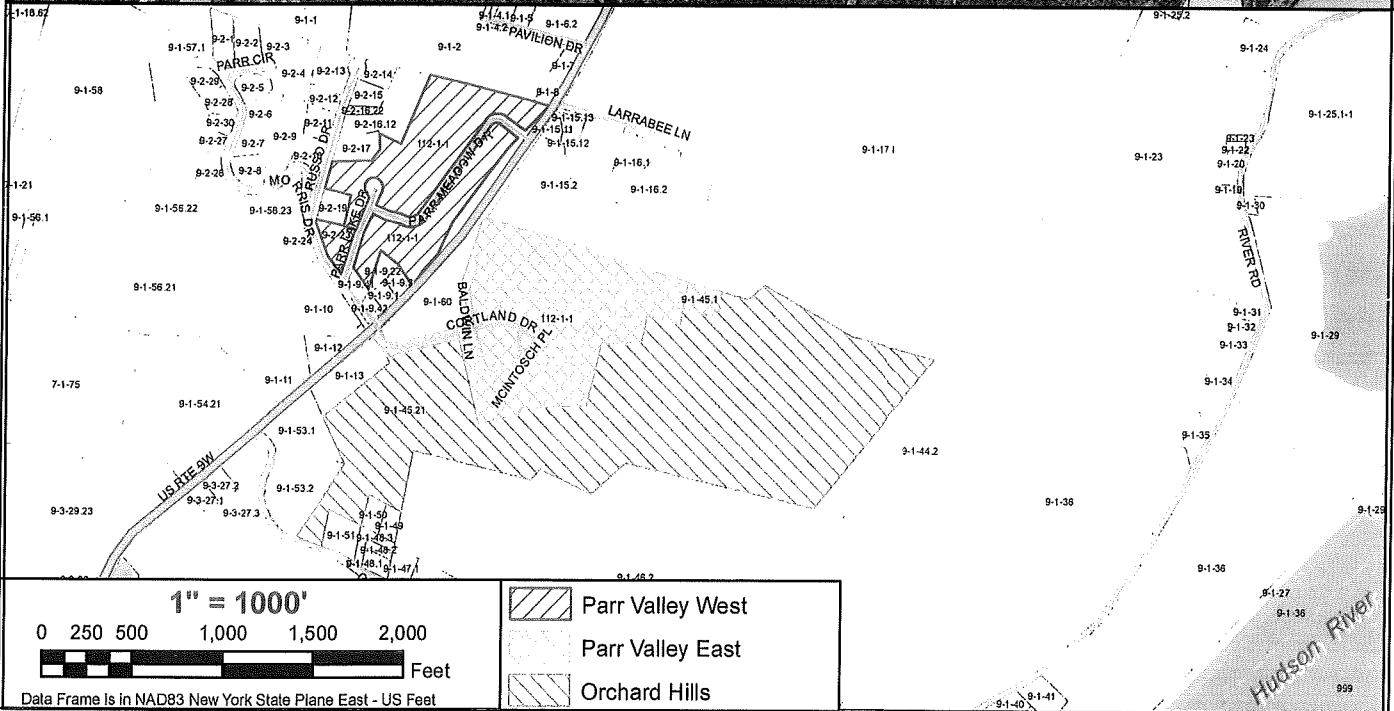
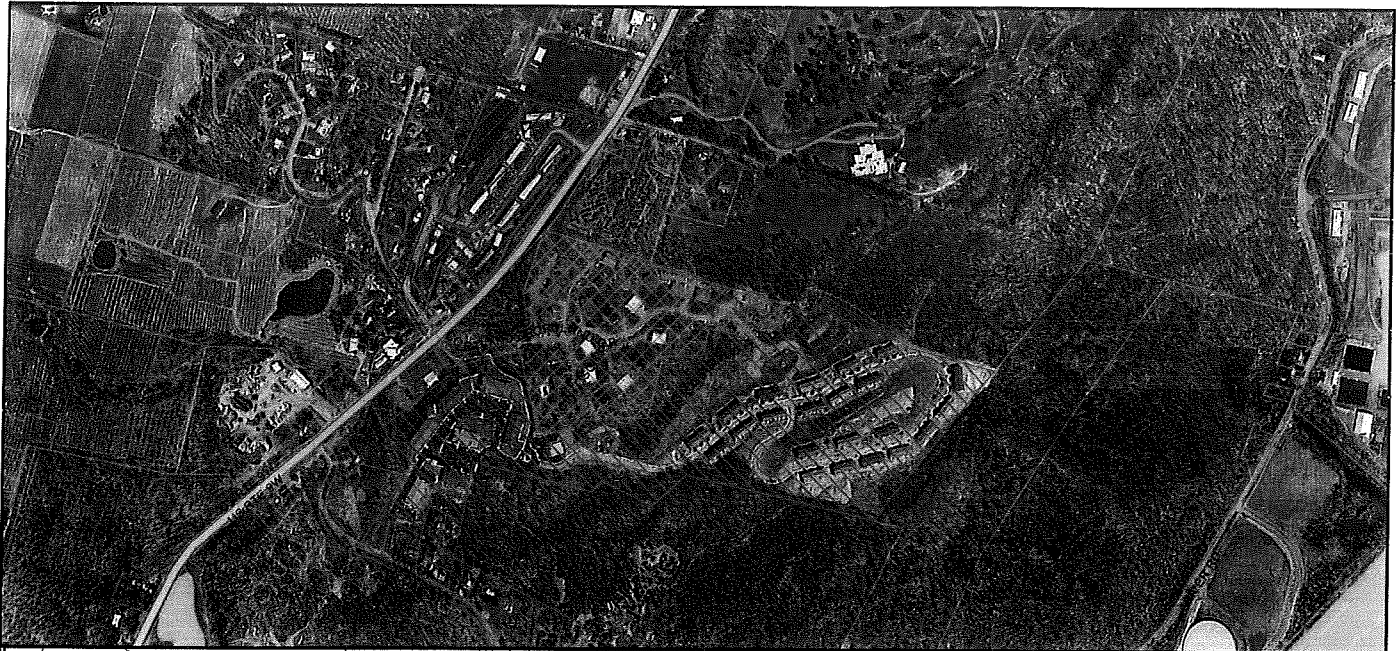
Mark Edsall, P.E.
Principal

ATTACHMENT 1
MAP OF DISTRICT



Roseton Hills Sewer District
Town of Newburgh, New York
March 23, 2016

Produced by:
MHE^D_P_C
McGoey, Hauser & Edsall, D.P.C.



ATTACHMENT 2
DISTRICT BOUNDARY DESCRIPTION

Metes and Bounds Description
Roseton Hills Sewer District (East)

ALL that certain plot, piece or parcel of land situate, lying, and being in the Town of Newburgh, County of Orange, State of New York being more particularly bounded and described as follows:

BEGINNING at a point lying on the northerly side Oak Street, said point being the southeasterly corner of lands now or formerly of Gurda and also being the southwesterly corner of the parcel herein intended to be described.

THENCE north 30 degrees 02 minutes 06 seconds east for a distance of 474.81 feet along lands now or formerly of Gurda to a point.

THENCE north 25 degrees 32 minutes 18 seconds west for a distance of 249.10 feet along other lands now or formerly of Gurda to a point.

THENCE north 51 degrees 52 minutes 54 seconds east for a distance of 471.17 feet along lands now or formerly of Route 9W Associates of Newburgh Inc. to a point.

THENCE north 35 degrees 28 minutes 26 seconds west for a distance of 167.43 feet continuing along lands now or formerly of Route 9W Associates of Newburgh Inc. to a point lying on the easterly side of New York State Route 9W.

THENCE north 44 degrees 01 minutes 09 seconds east for a distance of 44.72 feet along the easterly side of New York State Route 9W to a point.

THENCE south 42 degrees 42 minutes 09 seconds east for a distance of 72.93 feet along lands now or formerly of Newtown Investors, Inc. to a point.

THENCE on a curve to the left having a radius of 45.00 feet and an arc length of 47.91 feet continuing along lands now or formerly of Newtown Investors, Inc. to a point.

THENCE north 76 degrees 17 minutes 51 seconds east for a distance of 435.02 feet continuing along lands now or formerly of Newtown Investors, Inc. to a point.

THENCE north 13 degrees 42 minutes 09 seconds west for a distance of 240.00 feet along other lands now or formerly of Newtown Investors, Inc. to a point.

THENCE north 19 degrees 33 minutes 34 seconds east for a distance of 365.23 feet continuing along other lands now or formerly of Newtown Investors, Inc. to a point.

THENCE south 74 degrees 33 minutes 07 seconds east for a distance of 612.29 feet along lands now or formerly of Mazzola to a point.

THENCE south 14 degrees 34 minutes 50 seconds west for a distance of 15.84 feet along lands now or formerly of Cedar Hill Cemetery to a point.

THENCE south 74 degrees 24 minutes 10 seconds east for a distance of 917.40 feet continuing along lands now or formerly of Cedar Hill Cemetery to a point.

THENCE north 48 degrees 46 minutes 50 seconds east for a distance of 111.54 feet continuing along lands now or formerly of Cedar Hill Cemetery to a point.

THENCE south 60 degrees 36 minutes 10 seconds east for a distance of 569.54 feet continuing along lands now or formerly of Cedar Hill Cemetery to a point.

THENCE south 79 degrees 12 minutes 35 seconds east for a distance of 355.81 feet continuing along lands now or formerly of Cedar Hill Cemetery to point.

THENCE south 37 degrees 48 minutes 31 seconds west for a distance of 142.19 feet along lands now or formerly of FNSN LLC to a point.

THENCE south 43 degrees 15 minutes 30 seconds west for a distance of 60.08 feet along other lands now or formerly of FNSN LLC to a point.

THENCE south 38 degrees 34 minutes 41 seconds west for a distance of 121.45 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENCE south 43 degrees 35 minutes 34 seconds west for a distance of 56.31 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENCE south 38 degrees 55 minutes 04 seconds west for a distance of 322.27 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENCE south 33 degrees 07 minutes 58 seconds west for a distance of 49.09 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENCE south 40 degrees 21 minutes 30 seconds west for a distance of 270.38 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENCE south 37 degrees 19 minutes 47 seconds west for a distance of 43.50 feet continuing along other lands now or formerly of FNSN LLC to a point.

THENC along said lands now or formerly of Farkas and generally along a stone wall, the following courses and distance:

- North 75 degrees 53 minutes 09 seconds west for a distance of 275.69 feet to a point.
- North 77 degrees 55 minutes 50 seconds west for a distance of 223.90 feet to a point.
- North 70 degrees 27 minutes 25 seconds west for a distance of 65.07 feet to a point.
- North 76 degrees 32 minutes 36 seconds west for a distance of 416.35 feet to a point.
- North 80 degrees 45 minutes 11 seconds west for a distance of 106.91 feet to a point.

THENCE continuing along lands now or formerly of Farkas and generally along a wire fence, the following courses and distances:

- South 56 degrees 48 minutes 19 seconds west for a distance of 80.12 feet to a point.
- South 46 degrees 35 minutes 11 seconds west for a distance of 45.14 feet to a point.
- South 40 degrees 50 minutes 06 seconds west for a distance of 121.96 feet to a point.
- North 64 degrees 16 minutes 51 seconds west for a distance of 321.55 feet to a point.

- South 43 degrees 36 minutes 55 seconds west for a distance of 75.64 feet to a point.
- North 77 degrees 56 minutes 34 seconds west for a distance of 189.79 feet to a point.
- North 79 degrees 18 minutes 03 seconds west for a distance of 150.30 feet to a point.
- North 75 degrees 53 minutes 51 seconds west for a distance of 335.82 feet to a point.
- South 11 degrees 20 minutes 16 seconds west for a distance of 306.68 feet to a point.

THENCE north 64 degrees 47 minutes 52 seconds west for a distance of 212.86 feet along lands now or formerly of Duckworth and along lands now or formerly of Byczek to a point.

THENCE south 11 degrees 18 minutes 40 seconds west for a distance of 209.93 feet continuing along lands now or formerly of Byczek to a point.

THENCE north 65 degrees 51 minutes 20 seconds west for a distance of 200.00 feet along lands now or formerly of Savarese to a point.

THENCE south 11 degrees 18 minutes 40 seconds west for a distance of 178.30 feet continuing along lands now or formerly of Savarese to a point lying on the northerly side of Oak Street.

THENCE north 69 degrees 41 minutes 05 seconds west for a distance of 132.23 feet along the northerly side of Oak Street to the point or place of beginning.

SUBJECT to any easements, covenants, or restrictions of record.

Metes and Bounds Description
Roseton Hills Sewer District (West)

ALL that certain plot, piece or parcel of land situate, lying, and being in the Town of Newburgh, County of Orange, State of New York being more particularly bounded and described as follows:

BEGINNING at a point lying on the westerly side of New York State Route 9W (State Highway #5007), said point being the northeasterly corner of lands now or formerly of Kahn and also being the southeasterly corner of the parcel herein intended to be described.

THENCE north 37 degrees 05 minutes 25 seconds west for a distance of 150.00 feet along lands now or formerly of Khan to a point.

THENCE north 42 degrees 51 minutes 40 seconds east for a distance of 4.58 feet along Parcel II as shown on filed map #8582 filed in the Orange County Clerk's Office to a point.

THENCE north 53 degrees 21 minutes 40 seconds west for a distance of 125.51 feet continuing along Parcel II as shown on said filed map to a point.

THENCE south 17 degrees 42 minutes 50 seconds west for a distance of 215.00 feet continuing along Parcel II as shown on said filed map to a point.

THENCE north 37 degrees 05 minutes 25 seconds west for a distance of 147.76 feet along lands now or formerly of James & McGuinness to a point lying on the easterly side of Parr Lake Drive.

THENCE north 17 degrees 42 minutes 50 seconds east for a distance of 166.31 feet along the easterly side of Parr Lake Drive to a point.

THENCE north 24 degrees 36 minutes 02 seconds east for a distance of 241.48 feet continuing along the easterly side of Parr Lake Drive to a point.

THENCE on a curve to the left having a radius of 50.00 feet an arc length of 235.62 feet along Parr Lake Drive to a point.

THENCE south 24 degrees 36 minutes 02 seconds west for a distance of 194.49 feet along the westerly side of Parr Lake Drive to a point.

THENCE south 17 degrees 42 minutes 50 seconds west for a distance of 6.44 feet continuing along the westerly side of Parr Lake Drive to a point.

THENCE north 76 degrees 12 minutes 40 seconds west for a distance of 70.25 feet along lands now or formerly of Felicello to a point.

THENCE north 14 degrees 42 minutes 50 seconds east for a distance of 172.51 feet along Lot #3 of Parr Estates to a point.

THENCE north 76 degrees 45 minutes 00 seconds west for a distance of 150.00 feet continuing along Lot #3 of Parr Estates to a point lying on the easterly side of Russo Drive.

THENCE north 15 degrees 37 minutes 05 seconds east for a distance of 150.00 feet along the easterly side of Russo Drive to a point.

THENCE north 87 degrees 59 minutes 40 seconds east for a distance of 217.25 feet along Lot #5 of Parr Estates to a point.

THENCE north 39 degrees 29 minutes 40 seconds east for a distance of 76.00 feet continuing along Lot #5 of Parr Estates to a point.

THENCE north 02 degrees 07 minutes 40 seconds west for a distance of 84.30 feet continuing along Lot #5 of Parr Estates to a point.

THENCE south 65 degrees 23 minutes 58 seconds east for a distance of 130.00 feet along Lot #6 of Parr Estates to a point.

THENCE north 24 degrees 36 minutes 02 seconds east for a distance of 395.33 feet continuing along Lot #6 of Parr Estates to a point.

THENCE south 74 degrees 56 minutes 40 seconds east for a distance of 666.13 feet along lands now or formerly of Middle Hope Fire Company, Inc. and along lands now or formerly of Porco to a point lying on the westerly side of New York State Route 9W (State Highway #5007).

THENCE the following courses and distances along the westerly side of New York State Route 9W (State Highway #5007):

- South 42 degrees 09 minutes 05 seconds west for a distance of 214.22 feet to a point.
- South 43 degrees 14 minutes 05 seconds west for a distance of 140.50 feet to a point.
- South 37 degrees 09 minutes 35 seconds west for a distance of 460.10 feet to a point.
- South 24 degrees 22 minutes 35 seconds west for a distance of 158.20 feet to a point
- South 41 degrees 03 minutes 35 seconds west for a distance of 204.33 feet to the point or place of beginning.

SUBJECT to any easements, covenants, or restrictions of record.